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(54) Title: BANKNOTE VALIDATOR

(57) Abstract

A banknote validator includes magnetic and optical sensors (305, 306, 307) and a non-return gate in its banknote path (80). The magnetic sensor (307) comprises a magnetic circuit and an electronic circuit. The magnetic circuit comprises a yoke (402) and two giant magneto-resistors (400, 401) and the electronic circuit comprises a coil (407) arranged to generate a magnetic field in the yoke (402) and first and second feedback control loops. The first loop is responsive to the output of the first giant magneto-resistor (400) to energise the coil (407) so that the giant magneto-resistor operates in a predetermined region of its characteristic. The second loop is responsive to the differential between the giant-magneto-resistor outputs to generate a bias voltage for the second giant-magneto-resistor (401) tending to cause the differential to be zero.

